

## TYPES OF SEPARATION USED FOR POSTAGE STAMPS

With few exceptions most postage stamps are printed as multiples. They might be printed in sheets as small as six or 12 stamps or as large as 400.

The early stamps, from 1840 to the 1850s, were printed without any ready-made method of separation. To be used, stamps had to be cut with scissors or knife or torn from sheets or panes. Not only was this time-consuming but error-prone as the mangled stamps of the era corroborate.

Stamp collectors call such stamps "imperforate," without perforations or roulettes separating the individual stamps.

Here is an example of an imperforate strip, three Indian 4-anna red and blue Queen Victoria stamps (Scott 6). Note that there are no manufactured means of separation between the stamps.



This strip of three stamps was cut from the lower-left corner of a sheet of 24 stamps, probably with scissors. (3)

Some countries, notably France and French colonies, Hungary and Latvia, made a practice of issuing stamps of the same design in two formats: both with a means of separation and imperforate. Here is a French example:



Emperor Napoleon III  
(Scott 15)



Emperor Napoleon III  
(Scott 26)

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The vast majority of imperforate stamps were issued in that format. When the means of separation is accidentally omitted during production, the resulting imperforate stamp is an imperforate stamp error. Such errors often can be quite valuable.

One of the defining characteristics of postage stamps is their separations. Separations are a manufactured characteristic that allows stamps to be removed from a sheet or pane. This exhibit explores the different types of separations used on postage stamps.

Perforations were the first type of separations to be generally adopted for use on postage stamps. The process largely began with cutting a line of holes, usually round, between the stamps. The result was bridges of paper, which when stamps are torn apart or removed from the sheet, are known as "teeth of the perforation" or **perfs**. (1)

Henry Archer patented a perforating machine in 1848 in England, and British postage stamps began to be issued with perforations in 1855, although some had been experimentally perforated or rouletted earlier.

Next to come to the market was the "rotary process" patented by William Bemrose and Henry Howe Bemrose in 1854. Both processes used rows of small round pins called combs pushed into counterpart dies to punch out small bits of paper. The processes have been refined since then, but are basically still the ones in use in the 21<sup>st</sup> century. (2)

How neatly and easily the stamps can be separated from each other can be affected by several factors, including the gauge of the perforation (how close together or how far apart the perforation holes are) and the type of paper being used. If the perforation holes are too far apart, the stamps do not separate from each other easily and can be torn. If the holes are too close together, the stamp panes can separate and fall apart after being handled a bit.



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One of the ways that stamp collectors identify and classify stamps is by the gauge of the perforations. Since it is common to have several printings of the same stamp image, the size of the perforation is often the best way to determine the difference. (3)

Although the color in this example appears as different shades, each stamp was printed as a Franklin 1 cent green.

Scott 552, Flat Plate Printing, 1922 – 25, perforation 11

Scott 578, Rotary Press Printing, 1923, perforation 11x10

Scott 581, Rotary Press Printing, 1923 – 26, perforation 10

Scott 575, Flat Plate Printing, 1923 – 25, imperforate



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Stamps with perforations that gauge differently at the top and bottom from those at the sides are said to have "compound perforations." These United States issues are perf 11x10 ½.



F. Pierce (Scott 819)



J. Buchanan (Scott 820)



A. Lincoln (Scott 821)

Most perforated stamps have been issued with perforations that gauge between 8 and 16, and generally modern stamp perforations tend to range from 11 to 13.

Small holes and teeth close together are known as *fine perforations*.



Perf 14



Perf 14.5

Large holes and teeth far apart are known as *course perforations*. This example from Korea, demonstrates this type of perforation.



Perf 9

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Stamps that are perforated on one pair of opposite sides and imperforate on the other have most often been produced in coils instead of sheets. The **coil stamp** is sold in strips one stamp wide and derives its name from this manner of form, much like a roll of adhesive tape.

Coil stamps first appeared at the beginning of the 20<sup>th</sup> century. In the United States, vending machine companies began to experiment with the automated dispensing of stamps. Early efforts to break sheets into strips manually did not work well as they were prone to tearing and jamming in the machines. Imperforate sheets were requested from the post office. The sheets were cut into strips and holes punched between each stamp. A variety of these "private coils" is known, some quite rare.

The first US government-produced coils appeared in 1908, produced by pasting together enough imperforate sheets to make rolls of 500 or 1,000 stamps, cutting them into strips and perforating between. (2) Coil stamps include endwise and sidewise coils.



(Scott 410)



(Scott 412)

A large percentage of modern stamps are sold in coil form, since they are more receptive to mechanized handling in large quantities than either sheet stamps or booklet stamps.



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Perforations with an intentional irregularity are called **syncopated perfs**. "The earliest form was used by the Netherlands from 1925-33, where holes were omitted to create distinctive patterns." (2) In the 1990s, Great Britain began using large elliptical holes on its Machin Definitive issues as an anti-counterfeiting measure. Here we see both perfs.



(Scott MH 69)



(Scott MH 245)

The same elliptical syncopated perf is also used on stamps from Hong Kong. But note the perf appears midway on the side rather than the third space from the bottom.



(Scott 998)

Type A Syncopation, first issued in 2000 is shown here on an Argentine issue. On the two longer sides, groups of 2 and 18 holes separated by a bracket-shaped hole equal in width to two holes. (1)



(Scott 2134)



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Bulgaria introduced perf. 12  $\frac{3}{4}$  syncopated in 2003 on issues of 1999 and 2000.



(Scott 4155a)

In 1920, Sweden began using stamps perforated only horizontally or vertically. Unless part of a booklet pane, these stamps were coil stamps. (1) In several modern issues, the syncopated perf is a double oval at the midpoint.



On these modern stamps from China, the single oval syncopated perf is also at midpoint, placed on either the short side or the long side.





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Not all syncopated perfs are round in shape. On this recent issue from Canada that commemorates the International Polar Year, the perf at the midpoint of the short side is a maple leaf.



One of the most unique syncopated perf is on the Rescue At Sea issue from Great Britain. The two long sides show the Morse Code SOS message, a call for help. Dots and Dashes in the perforation represent the letters.



Mechanical errors occur in perforations too. **Blind perfs** are common, occurring when a hole is not completely punched out.





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Even more imaginative use of die cuts can be used to cut stamps in odd or irregular shapes or even to cut to the shape of a stamp design as seen in this example from Canada.



(Scott 1901)

Here we have a die cut that combines a continuous line with "perforations" for Russia and another example of syncopated die cut for Brazil.



A stamp collector's knowledge of the combined elements that make up a given stamp issue will contribute to his or her ability to identify stamps. Separation is one such element used in the identification process. As this exhibit has demonstrated there is quite a bit of variety.